

From: [Andrea Venn](#)
To: [Glinda Cooper/DC/USEPA/US@EPA](#)
Subject: RE: FW: Follow-up question regarding 2003 wheeze study
Date: 03/29/2012 09:44 AM

Yes, I would think this should be included with the studies of asthma. Our outcome of asthma was based on questionnaire reported wheeze, as most asthma epi studies are, and by asking on 2 occasions and only using the persistent ones, this should result in a more accurate group of asthmatics. The medical records bit was only used in a tiny bit of the paper, and all the results presented in the tables are based on the questionnaire definition only.

Hope this helps

Andrea

From: Glinda Cooper [mailto:Cooper.Glinda@epamail.epa.gov]
Sent: 29 March 2012 14:31
To: Andrea Venn
Subject: Re: FW: Follow-up question regarding 2003 wheeze study

Thanks so much. This is exactly what I need. (I'm preparing some graphical displays of the asthma data from various studies, so knowing where to plot the top points becomes much more crucial than when you're just looking at a series of results in tabular format).

My inclination is to include this study with the studies of asthma, even though the outcome ascertainment (persistent wheeze, reported on two occasions 3 years apart, with validation by medical records) doesn't fit exactly with some of the standardized questionnaire definitions used in epi studies. Do you think that's a reasonable decision, or do you think this is a distinct outcome that shouldn't be included with the asthma studies?

Glinda Cooper

▼ [Andrea Venn ---03/29/2012 08:29:05 AM---](#)Just following on from this, in the analysis of cases only (looking at effects on severity/symptoms,

From: Andrea Venn <Andrea.Venn@nottingham.ac.uk>
To: Glinda Cooper/DC/USEPA/US@EPA
Date: 03/29/2012 08:29 AM
Subject: FW: Follow-up question regarding 2003 wheeze study

Just following on from this, in the analysis of cases only (looking at effects on severity/symptoms, where a sig effect was seen), the median in the top quartile was slightly lower at 38.6 and the range 32-83.

BW

Andrea

From: Venn Andrea
Sent: 29 March 2012 13:19
To: 'Glinda Cooper'
Subject: RE: Follow-up question regarding 2003 wheeze study

Dear Glinda

No problem. I have gone back to the dataset and looked at the formaldehyde values in each of quartiles of exposure. The results are below (this is for all 404 children ie cases and controls, for whom we measured formaldehyde). In the top quartile, the median value was 41.02 microg/m3 and the range 32-123. Below this, I have put a table of the distribution of formaldehyde overall, not by quartile. If you need values for cases and controls separately, or anything else, please get back to me (but please note I am on annual leave for 2 weeks from Monday)

Best wishes

Andrea.

Dr Andrea Venn

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Distribution of formaldehyde by quartile of exposure:

Descriptives				
	formquar		Statistic	Std. Error
formal	1.00	Mean	11.43	.335
		95% Confidence Interval for Mean	Lower Bound	10.76
			Upper Bound	12.09
		5% Trimmed Mean	11.70	
		Median	12.24	
		Variance	12.023	
		Std. Deviation	3.467	
		Minimum	1	
		Maximum	16	
		Range	15	
		Interquartile Range	4	
		Skewness	-1.131	.234
		Kurtosis	1.014	.463
	2.00	Mean	19.00	.175
		95% Confidence Interval for Mean	Lower Bound	18.65
			Upper Bound	19.35
		5% Trimmed Mean	18.99	
		Median	19.23	
		Variance	2.876	
		Std. Deviation	1.696	
		Minimum	16	
		Maximum	22	
		Range	6	
		Interquartile Range	3	
		Skewness	.011	.249
		Kurtosis	-1.094	.493
	3.00	Mean	26.86	.287
		95% Confidence Interval for Mean	Lower Bound	26.29
			Upper Bound	27.43
		5% Trimmed Mean	26.84	
		Median	26.55	
		Variance	8.892	
		Std. Deviation	2.982	

		Minimum		22	
		Maximum		32	
		Range		10	
		Interquartile Range		5	
		Skewness		.097	.233
		Kurtosis		-1.120	.461
	4.00	Mean		44.39	1.388
		95% Confidence Interval for Mean	Lower Bound	41.64	
			Upper Bound	47.15	
		5% Trimmed Mean		42.77	
		Median		41.02	
		Variance		183.125	
		Std. Deviation		13.532	
		Minimum		32	
		Maximum		123	
		Range		91	
		Interquartile Range		11	
		Skewness		2.830	.247
		Kurtosis		12.004	.490

Overall distribution of formaldehyde:

Descriptives				
			Statistic	Std. Error
formal	Mean		25.07	.696
	95% Confidence Interval for Mean	Lower Bound	23.70	
		Upper Bound	26.43	
	5% Trimmed Mean		23.97	
	Median		22.01	
	Variance		195.780	
	Std. Deviation		13.992	
	Minimum		1	
	Maximum		123	
	Range		123	
	Interquartile Range		16	
	Skewness		1.803	.121
	Kurtosis		6.970	.242

From: Glinda Cooper [<mailto:Cooper.Glinda@epamail.epa.gov>]

Sent: 27 March 2012 23:06

To: andrea.venn@nottingham.ac.uk

Subject: Follow-up question regarding 2003 wheeze study

Dear Dr. Venn:

I am an epidemiologist with the U.S. Environmental Protection Agency, and I am preparing a summary of the relevant studies pertaining to formaldehyde exposure and asthma as part of a health assessment we are conducting for this chemical.

I have reviewed your 2003 paper on the wheezing risk and frequency of symptoms study you conducted (see attached pdf), and had a question I was hoping you could help me with. Could you tell me the **MAXIMUM** value, or even better, **the median formaldehyde level for the highest quartile of exposure (the > 32 microg/m3 group)**. That information would allow me to more accurately reflect the exposures corresponding to the risk estimate

seen in this group.

I appreciate any assistance you can provide about these questions (but I certainly understand the difficulties in going back to data sets completed so many years ago).

(See attached file: Venn_Thorax_2003.pdf)

Sincerely,

Glinda Cooper

Glinda S. Cooper, PhD
Senior Epidemiologist

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